THESIS

THE IMPACT OF TRAUMA EXPOSURE AND PARENTAL SEPARATION ON ACADEMIC RESILIENCE AMONG CHILDREN IN THE UNITED STATES

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ABSTRACT

THE IMPACT OF TRAUMA EXPOSURE AND PARENTAL SEPARATION ON ACADEMIC RESILIENCE AMONG CHILDREN IN THE UNITED STATES

This study examined the effects of parental separation on the resilience of children who have experienced trauma as well as assessing trauma severity, age, and gender as potential moderators of this relationship. There is considerable literature looking at the adverse effects of parental separation on children, but little has been done specifically related to children exposed to significant trauma. Utilizing data from the Colorado State University Children's Trauma and Resilience Assessment Center (CTRAC), the current study examined the effect of parental separation on resilient functioning, measured through the *Resilience and Trauma Severity Scales for Children and Adolescents (RSCA)* in a sample of 81 children who had been exposed to trauma. Furthermore, this study tested several moderators (trauma severity, age, and gender) on the association between parental separation and resilience in traumatized children. Results indicated no significant main effect of parental separation on resilience. However, trauma severity emerged as a significant moderator of the relationship between parental separation and children's resilience, and gender emerged as a significant predictor of certain aspects of resilient functioning.

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INTRODUCTION

A significant body of research shows that children's healthy socio-emotional development and well-being is rooted in a secure attachment to a primary caregiver (Fonagy & Target, 1997; Porcerelli, Huth-Bocks, Huprich, & Richardson, 2016; Rosenblum, Dayton, & Muzik, 2009; Waters & Deane, 1985). Various studies have indicated how attachment relationships predict childhood cognitive and behavior problems (Fagot & Kavanagh, 1990; Samuelson, Bartel, Valadez & Jordan, 2016), including childhood and adolescence mood and anxiety disorders (Warren, Huston, Egeland, & Stroufe, 1997), trauma- and stressor- related disorders (Foa et al., 1999; Moser, Hajcak, Simons, & Foa, 2007), substance-related and addiction disorders (Khoury, Tang, Bradley, Cubells, & Ressier, 2010), and cognitive delays (Brewin, Kleiner, Vasterling, & Field, 2007; Johnsen & Asbjørnsen, 2008; Scott et al., 2015). There is further research supporting evidence that environmental risk conditions such as poverty or parental mental illness is experienced by children through their attachment relationships with their primary caregiver (Zeanah, Boris, & Larrieu, 1997). Differences in attachment relationships within the context of these environmental risk conditions are shown to affect childhood outcomes (Seifer & Dickstein, 2000; Scott et al., 2015). These findings suggest that further attention to attachment relationships is important for understanding the considerable effects of trauma on childhood development.

Parental Separation

When children are separated from primary caregivers, particularly for extended periods of time and/or over repeated instances, the attachment system is disrupted and leads to compromised outcomes for children (NCTSN, 2016, Fox & Rutter, 2010). Separations may be

sudden, unexpected, and/or prolonged, and are often accompanied by additional cumulative stressful events, such as parental incarceration, parental deportation, or termination of parental rights (NCTSN, 2016). Even in situations where separations are not sudden, such as cases of parental deployment, these separations can still be traumatic for children. Research shows that young children are sensitive to stressors on the family system and developmentally vulnerable to separation from their primary caregiver, (Devoe, Paris, Emmert-Aronson, Ross, & Acker, 2016; Fox & Rutter, 2010). Childhood separations could result in a range of emotions for the child including fear, helplessness, dysphoria, rage, confusion, and anxiety (Bowlby, 1973; Malone, Westen, & Levendosky, 2011). For instance, during World War II, children who were separated from their caregivers were known to exhibit symptoms of despair (Freud & Burlingham, 1943). Research demonstrates that concern is warranted for the well-being of children who have experienced separations from a caregiver (Kobak, Little, Race, & Acosta, 2001; Bowlby, 1969). Effects of separations on children are associated with impairments in executive function (Brewin et al., 2007; Johnsen & Asbjørnsen, 2008; Samuelson et al., 2016; Scott et al., 2015), profound deficits in adaptive emotional behavior (O'Connor, Brendenkamp, & Rutter, 1999; Schore, 2005), difficulty in maintaining appropriate interpersonal relationships (Delima & Vimpani, 2011; Lawson, Davis, & Brandon, 2013; Perry & Szalavitz, 2006; Ritchie, 1996), and disrupted biological and behavioral systems (Hostinar & Gunner, 2013; Johnson, Riley, Granger, & Riis, 2013), including dissociative symptoms (Kobak et al., 2001; Ogawa, Sroufe, Weinfield, Carlson, & Egeland, 1997). Much of this research is grounded in attachment theory, suggesting that early attachment bonds are influenced by children's separation(s) from caregivers.

Attachment Relationships

Attachment relationships play a fundamental role in a child's development. During the first several months and years of life, a child is expected to develop either a secure or insecure attachment relationship based on her/his primary caregiver's level of presence and availability (Ainsworth, Blehar, Waters, & Wall, 1978). The level of safety and quality of attachment that develops between child and caregiver is suggested to serve as a foundation for the child's later expectations and beliefs about relationships (Raby, Cicchetti, Carlson, Egeland, & Collins, 2013). Indeed, decades of research show that insecure attachments predict childhood behavior and cognitive problems (Scheeringa & Zeanah, 2001). Research shows that attachments between child and caregiver are formed largely based on the presence and availability of the caregiver (Ainsworth et al., 1978). This suggests that a caregiver's lack of presence and accessibility due to separation can have adverse effects on a child's well-being (Bowlby, 1969).

Research demonstrates the effects of child-caregiver separation on attachment and child functioning. Leventhal and Brooks-Gunn (2000) found that separation from a primary caregiver for even a short period of time (1 week) was negatively associated with children's reading achievement. Luecken and Lemery (2004) showed that spending the day in child care, away from parents, is physiologically stressful for many children, although these separations can be buffered by responsive parenting prior to and after the switch to an alternative caregiver. More significant or extended childhood separations are shown to have different kinds of adverse effects on children. Crawford, Cohen, Chen, Anglin and Ehrensaft (2009) found that extended separations of a month or more when the child was younger than five years of age were linked to increased mental psychopathology in later adolescence and adulthood.

The complex effects of stress caused by multiple and/or prolonged caregiver separations on attachment relationships for children are compounded in the presence of trauma. Attachment theory provides an overarching framework for understanding the significant negative effects of caregiver separations on children's socio-emotional development. The research around attachment theory shows the adverse consequences on children who experience stress from parental separations. In the context of trauma, parental separations can have further negative implications on children's development.

Trauma

In the United States of America, over fifty percent of children and adolescents have experienced a traumatic event, including but not limited to domestic violence, community violence, child physical or sexual abuse, bullying, serious accidents, medical trauma, neglect, caregiver separations, or the traumatic death of a loved one (Cohen, Berliner, & Mannarino, 2010). Trauma is defined as a "subjective experience of terror and/or helplessness in response to an extraordinarily stressful event (Bulanda & Johnson, 2015, p. 303). Trauma can be limited to a single event (type 1 trauma) or be categorized as prolonged, repeated events (type 2 trauma) (Terr, 1991). Both types of trauma can ultimately lead the child to feelings of terror and helplessness (Terr, 1991).

Children can be subject to a wide range of traumatic events; therefore it can be challenging to find a label or diagnosis that encompasses the plethora of behavioral responses to trauma. Around a quarter of children exposed to trauma manifest significant symptoms of Posttraumatic Stress Disorder (PTSD): they re-experience negative cognitions and mood, avoidance, and arousal (American Psychiatric Association, 2013; Bulanda & Johnson, 2015; Copeland, Keeler, Anglod, & Costello, 2007). However, early childhood trauma is associated

with symptoms that include, but also extend beyond PTSD (NCTSN, 2003). Another conceptualization of the impact of trauma is *complex trauma*, a maladaptive reaction to the "experience of early multiple, chronic, and prolonged, developmentally adverse traumatic events, most often of an interpersonal nature in a child's caregiving system" (NCTSN, 2003; Bulanda & Johnson, 2015, p. 304). The maladaptive behavioral symptoms of complex trauma span multiple developmental domains and include (a) self-regulatory, attachment, anxiety, and affective disorders in infancy and childhood; (b) addictions, aggression, social helplessness and eating disorders; (c) dissociative, somataform, cardiovascular, metabolic, and immunological disorders; (d) sexual disorders in adolescence and adulthood; and (e) revictimization (NCTSN, 2003).

Relationally, traumatized children and caregivers sometimes engage in adverse cycles such as overreacting to stimuli or withdrawing from engagement (Lieberman, Padrön, Van Horn, & Harris, 2005). Substantial empirical research shows that children's ability "to withstand and cope with adversity is fostered by secure attachments, positive emotional bonds to supportive and competent adults, confidence in oneself, and motivation to act effectively in an environment" (Lieberman et al., 2005, p. 509). The study of how children develop adaptive behavioral traits in the context of trauma is an area of considerable promise for learning developmental theory as well as informing prevention and intervention policies (Cicchetti & Rogosch, 1996).

Resilience

Resilience is a dynamic, developmental process that pertains to positive adaptation within the context of significant adversity through trajectories that defy normative expectations (Cicchetti, 2010; Cicchetti & Rogosch, 1996; Luthar & Cicchetti, 2000; Masten, 2001). The study of resilience has moved beyond identifying individual risk and protective factors and

focuses now on underlying processes within the context of situational factors and how these factors interact to contribute to positive outcomes (Cummings & Valentino, 2015; Luthar & Cicchetti, 2000). This focus on processes rather than identifying factors provides researchers the ability to formulate prevention and intervention strategies that are developmentally informed for promoting resilience for individuals experiencing significant adversity or trauma (Cicchetti, 2010). Knowledge of the developmental processes underlying resilience enable prevention and intervention scientists to capitalize on periods of developmental transitions as opportunities to promote positive adaptation during significant adversity or trauma (Cicchetti, 2010).

A significant component of resilience research rests on looking at processes that show resilience in populations who thrive in the face of adversity as compared to those who do not (Garmezy & Masten, 1994; Luthar & Zelazo, 2003; Prince-Embury, 2013). Informed by current research in developmental theory, this study will focus on processes of resilience as these relate to the individual resilience of children and adolescents. For the purposes of this study, resilience will be measured with the *The Resiliency Scales for Children and Adolescents* (Prince-Embury, 2007). Utilization of such a measure supports the identification (Prince-Embury, 2013) of three primary processes (mastery, relatedness, and emotional reactivity) of resilience based on research categorizing indicators of resilience in children such as intellectual ability, easy temperament, autonomy, self-reliance, sociability, effective coping strategies, and adaptive communication skills, positive bond with at least one caregiver, good peer relations, and positive relationships with other adults.

Resilience and Sense of Mastery

An important construct that has been consistently linked with the developmental process of resilience is a sense of mastery, self-efficacy, and competence (Prince-Embury, 2013). Sense of mastery has been used as a successful strategy for preventing or lessening the effects of trauma on behavioral and emotional problems (Masten, Burt, & Coatsworth, 2006; Masten & Coatsworth, 1998). Self-efficacy and feelings of competence provide children with a positive desire to interact with and enjoy relationships in their environment (White, 1959). For example, positive self-efficacy in 10-12 year olds predicted better behavioral adaptation and resilience to stress (Cowen, Pryor-Brown, Hightower, & Lotyczewski, 1991).

Resilience and Sense of Relatedness

The critical role relationships play for human resilience is noted in every major review of protective processes for resilience (Masten & Obradovic, 2006). Luthar and Zelazo (2003) summarized, "Resilience rests, fundamentally, on relationships" (p. 529). Research has consistently described the preventative and mediatory power of attachment between caregiver and child emphasizing the early social interactive processes between child and caregiver that sets the trajectory of how the child relates to others during his or her lifetime (Bowlby, 1969; Ainsworth & Wittig, 1969). Research has further highlighted the significance of an attachment system to the resilience processes of an individual. A close bond with a caring, effective parent is related to better outcomes among children who face marital discord, child maltreatment, homelessness, or multifaceted high risk (Masten & Coatsworth, 1998). Similarly, in severe trauma exposure such as war or natural disasters, child attachment and trust with caregivers is an accurate predictor of children's behaviors (Garmezy & Masten, 1994; Wright, Masten, & Hubbard , 1997) .

Another internal mechanism that contributes to the child's ability for relatedness is the development of trust versus distrust (Erikson, 1963). Erikson (1963) argued that the first developmental psychosocial milestone achieved by a child is trust between child and caregiver, upon which all other social-emotional processes develop. Trust is defined as the ability to receive and accept what is given (Erikson, 1963). In many ways, healthy attachment and trust develop internal mechanisms that reflect previous relational support experienced by the child which may in some way shield the child from the full negative psychological impact of trauma (Prince-Embury, 2013).

Positive relationships that account for resilience are not limited to the health of the child's attachment and trust with the child's biological parents, but extends to significant relationships with caring adults outside of the nuclear family (Werner & Smith, 1982). Werner and Smith (1982) found that resilient youth had a more extended network of supportive adults (teachers, ministers, neighbors) more often than non-resilient youth.

Resilience and Emotional Reactivity

Research literature in developmental psychopathology has indicated that children's development of pathology in the face of adversity is related to their level of emotional reactivity, and the child's ability to regulate this reactivity (Prince-Embury, 2013). Emotional reactivity is the speed and intensity of a child's negative emotional response, and regulation is the child's ability to control and monitor that negative emotional response (Rothbart & Derryberry, 1981). Each child's emotional reactivity can vary in its intensity, sensitivity, specificity, windows of tolerance, and recovery (Siegel, 1999). Conversely, emotional regulation, or the child's capacity to modulate emotional reactivity, is an important component of fostering resilience processes (Cicchetti, Ganiban, & Barnett, 1991; Cicchetti & Tucker, 1994; Eisenberg, Champion, & Ma,

2004). Emotional regulation and redirection of negative emotional responses are required for a child to be resilient in traumatic situations (Cicchetti et al., 1991; Thompson, 1990). Emotional regulation is a part of self-regulation, which is an internal set of tools that aid a child in regulating and maintaining the homeostasis required for functioning in their own attention, emotion, and behavior (Cicchett & Tucker, 1994; Pennington & Walsh, 1995; Rothbart & Bates, 1998). Self-regulation enables a child to control, redirect, and modulate their own processes to function in the most adaptive way in the face of trauma or adverse situations (Prince-Embury, 2013).

Resilience and Age and Gender

The relationship between the demographic variables age, gender, and trauma levels and resilience scores of children was examined by Prince-Embury (2013). Prince-Embury (2013) found that age differences were minimal and appeared primarily for a subscale within the emotional reactivity score, where younger males reported more impairment in a subscale of emotional reactivity.

According to Prince-Embury (2013), there were no significant gender differences in the three scales. However, there were some effect size differences which showed that for the sample of children for ages between nine and eleven, gender differences showed that girls reported higher sense of relatedness than boys (d = .36) (Prince-Embury, 2013).

Summary

It is clear from the research that has been presented that there needs to be concern for children who have experienced parental separation due to a host of adverse consequences on the behavioral and emotional well-being of such children (Kobak et al., 2001). While there has been research on the effects of stress and trauma of parental separation on cognitive and emotional functioning of children (Scheeringa & Zeanah, 2001), there is little research done on the effects of parental separation in the context of children who have experienced traumatic events. Furthermore, considering the growing numbers of children who experience trauma before age 18 (Cohen et al., 2010), and the adverse effects of trauma on resilient functioning of children (NCTSN, 2003), there is a need to look at how parental separation is associated with resilient functioning of children who have experienced high levels of trauma.

The Current Study

In this study, I examined the effects of parental separation on the resilient functioning of children who have experienced trauma, while controlling for trauma severity, age and gender. Specific questions that guided the analysis are below:

1. To what extent does presence of parental separation explain the variance in resilient functioning for children who have experienced trauma after controlling for age, gender, and trauma severity of the child?
2. To what extent do age, gender, trauma severity moderate the effect between parental separation and resilient functioning in children who have experienced trauma?

Based on the previously described research and theoretical frameworks, the following hypotheses were made regarding the current study:

1. Parental separation significantly explains the variation in resilient outcomes for children who have experienced trauma.
2. The moderating effects of age, gender, and trauma severity are exploratory in nature. While in general I expected potential significant moderating effects, based on the literature, no hypotheses about direction of effects are specified.

METHODS

This study utilized an existing clinical data base to examine the effect of parental separation on children's resilience in a sample of children who had experienced significant and potentially severe trauma. The data were collected in the CSU Child Trauma and Resilience Assessment Center (CTRAC) as part of ongoing trauma assessments. The assessment tools in the clinical files were examined, and data were abstracted from these files and de-identified by third-party clinicians who were not involved in the current study. The study was exempted by the IRB because it utilized secondary de-identified data.

Participants

81 children ranging from ages five through 18 (about 53% female) were included in the study. Each of the children had been involved with the county Department of Human Services (DHS) in the Children, Youth, and Family department as a child protection case or juvenile court case. Each case that DHS opened with a child and their families was referred to CTRAC and children were assessed with the Southwest Michigan Trauma Screening Checklist (see Appendix A). The child's caseworker completed the Southwest Michigan Trauma Screening Checklist with the information that had been gathered based on DHS records and first-hand interviews. Children who met 11 or more of the listed criterion were referred to a high-level trauma assessment. Disclosures and release of information were signed by legal caregivers for every child who was referred to CTRAC (see Appendix B and Appendix C).

Procedures

Participants came in to CTRAC for a full-day, six-hour trauma assessment that was delivered in two parts. The first part of the assessment was a two-hour neurodevelopment assessment. This part of the assessment was facilitated by two clinicians, with a focus on completing a battery of neurodevelopmental assessments that included cognitive, language, sensory, and intelligence measures. During this portion of the assessment, the resiliency measure is collected. These measures were completed while also building positive, engaging rapport between the participant and the clinicians.

There was a one-hour lunch break between the neurodevelopment assessment and the second part of the assessment. Over lunch participant had the opportunity to engage with a trusted adult, usually their primary caregiver.

The second part of the assessment was the psychosocial assessment. During this portion of the testing, the primary clinician used a series of relational and projective assessment tools to learn the participant's personal trauma framework, help organize their experiences, and explore emotions, thoughts, and behaviors in relationship to past, current and future events.

Trauma Assessments at CTRAC included in-depth interviews with people who have contact with the child, including caregivers, caseworker(s), therapists, *guardians ad litem*, mentors/coaches, school staff, and law enforcement officers.

Variables and Measures

A wide range of data were collected during the assessments. For the purposes of this study, I utilized the following measures.

Parental Separation and Trauma Severity Parental separation and trauma severity were measured using the Southwest Michigan Trauma Screening Checklist (Richardson, Coryn, Henry, Black-Pond & Unrau, 2012; see Appendix A). This checklist was used for screening purposes only and reflected information received throughout the assessment about known or suspected trauma exposure, as well as behavioral, emotional, and relational concerns often associated with trauma exposure. The trauma screen was performed with every new case involving a child between ages five and 18; the screening was completed by an intake caseworker at the county's Department of Human Services.

The trauma screening checklist was split into two sections. The first section indicates history of trauma including potentially traumatic events such as physical abuse, suspected neglect, emotional abuse, exposure to domestic violence, drug activity aside from parental use, exposure to any other violence not indicated, parental drug/substance use, multiple separations from caregiver, frequent moves or homelessness, and sexual abuse or exposure (Richardson, Coryn, Henry, Black-Pond & Unrau, 2012). This portion of the screening checklist also identified if the child has had multiple separations from their parents. The first section criterion ranges from one to 10. The second section detailed symptomology of children who have been exposed to traumatic events. This section included adverse behaviors, emotions/moods, attachment styles, and academic behaviors for children who have experienced trauma (Richardson, Coryn, Henry, Black-Pond & Unrau, 2012). The second section criterion ranges from one to 17. The complete trauma screening checklist with both section criterion ranges from one to 27, and children who screen in 11 or more of the total criterion are referred for a high-level trauma assessment. For more detailed information regarding the trauma screen refer to Appendix D.

Variables abstracted from this measure include *parental separation*, which was scored based on presence of separations (0=no, 1=yes), and *trauma severity*, which was scored based on number of traumatic indicators (not including parental separation). Trauma severity scores ranges from one to 17, and were taken from the second section detailing trauma symptomology in order to avoid overlap with the parental separation variable which is taken from the first section detailing trauma history.

Resilience This study measured resilience using the self-report questionnaire, *Resilience and Trauma Severity Scales for Children and Adolescents (RSCA)* (Prince, Embury, 2007; see Appendix E). Personal resiliency was defined through self-reported responses to the RSCA (Prince-Embury, 2007). Personal resiliency as defined in the RSCA is demonstrated by a three-factor model that includes Sense of Mastery, Sense of Relatedness, and Emotional Reactivity (Prince-Embury, 2007). The first two factors are considered positive protective processes. Sense of Mastery is defined as optimism, self-efficacy, and adaptability (Prince-Embury, 2013). Sense of Relatedness is defined as trust, access to support, comfort, and tolerance of others (Prince-Embury, 2013). The third factor, Emotional Reactivity, is a vulnerability factor which suggested that higher indicators of emotional reactivity are correlated with less resiliency in children (Prince-Embury, 2013).

The RSCA consists of 64 self-report statements and questions classified into three global scores indicating the underlying factors of personal resiliency: Sense of Mastery (20), Sense of Relatedness (24), and Emotional Reactivity (20) (Prince-Embury, 2015). In this study, each item was rated by a CTRAC clinician using a five-point Likert-type response assessing the frequency that children engage in the behavior indicated by the statement: *never* (0), *rarely* (1), *sometimes* (2), *often* (3), *almost always* (4). Sense of Mastery is captured by subscales of Optimism, Self-

Efficacy, and Adaptability and includes statements such as "I do things well" (Prince-Embury, 2015, p. 33). Sense of Relatedness is measured by subscales of Trust, Support, Comfort, and Tolerance, and includes statements such as "People like me" (Prince-Embury, 2015, p. 33). Emotional Reactivity utilizes subscales of Sensitivity, Recovery Time, and Impairment and includes statements such as "It is easy for me to get upset" (Prince-Embury, 2015, p.34).

The Likert scales were summed to form a raw score for each of the three scales -- Mastery, Relatedness, and Reactivity. Total raw scores for each scale were converted to *T* scores with mean of 50 and a standard deviation (*SD)* of 10. Although a summary Resource Index and Vulnerability Index can be calculated, for the purposes of this study, I used the Mastery, Relatedness, and Reactivity scales in order to get a more detailed and comprehensive understanding of each child's resilience. Internal consistency has been found to be good to excellent for all three global scales: Sense of Mastery (Cronbach's alpha =.89), Sense of Relatedness (Cronbach's alpha = .91), and Emotional Reactivity (Cronbach's alpha. = 95) (Prince-Embury, 2010).

Age and Gender Age and gender of each participant were abstracted from the Southwest Michigan Trauma Screening Checklist. Age was gathered from this screening tool and ranged from 5-18 based on the screening tool. Gender is specified as male or female, and was scored (0 = male, 1 = female).

RESULTS

Preliminary Analyses

Of the 81 participants, there were 38 males (46.9%) and 43 females (53.1%). About 38.3% of the participants experienced no parental separation and 61.7% of the participants had experienced parental separation. Overall, the age of the participants ranged from eight to 17 with an average of 13.52 (*SD* = 2.242). Trauma severity was measured through the Southwest Michigan Trauma Screening Checklist with a range of one to 11 (*M* = 5.99, *SD* = 1.927). Participants had a mean mastery relatedness score of 44.77 (*SD* = 11.781), mean relatedness score of 43.78 (*SD* = 13.091), and mean reactivity score of 57.05 (*SD* = 10.495). The distribution, skewness, and kurtosis of each variable was checked. All study variables showed relatively normal distributions with skewness no higher than .629 and kurtosis no higher than 2.035. Table 1 and 2 display univariate statistics for the variables utilized in this study

Inter-correlations of the study's variables are presented in Table 2. Parental separation was associated with higher levels of trauma severity parental separation, r = -.287, p <.01. Gender was significantly associated with mastery resilience scores, r = -.298, p <.0, and relatedness resilience scores, r = -.501, p <.01, such that males were shown to perform better than females in mastery and relatedness resilience scores. The resilience measures were strongly and significantly intercorrelated. As expected, higher mastery resilience scores were significantly associated with higher relatedness resilience scores, r = .722, p <.01. High reactivity resilience scores were also significantly associated with high mastery resilience scores r = .272, p <.05, and high relatedness resilience scores, r = .357, p <.01. There were no other significant correlations between variables.

Table 1
Demographics

Variable	Frequency	Percentage
Gender (N=81)		
Male	38	46.9
Female	43	53.1
Parental Separation (N = 81)		
No Separation	31	38.3
Separation	50	61.7
Age (N=81)		
8	1	1.2
9	5	6.2
10	5	6.2
11	5	6.2
12	6	7.4
13	13	16.0
14	13	16.0
15	18	22.2
16	11	13.6
17	4	4.9
Trauma Severity (N = 81)		
1	3	3.7
3	1	1.2
4	11	13.6
5	20	24.7
6	16	19.8
7	13	16.0
8	8	9.9
9	7	8.6
10	1	1.2
11	1	1.2

Table 2

Means (M), Standard Deviations (SD), and Correlations (N=81)

	M	*SD*	1	2	3	4	5	6	7
1. Parental Separation	.62	.489	1						
2. Trauma Severity	5.99	1.927	.287**	1					
3. Age	13.52	2.242	-.022	-.114	1				
4. Gender	.53	.502	.074	.020	.174	1			
5. Mastery Resilience	44.77	11.781	-.161	-.071	-.090	-.298**	1		
6. Relatedness Resilience	43.78	13.091	-.168	-.096	-.231*	-.501**	.722**	1	
7. Reactivity Resilience	57.05	10.495	.068	-.048	-.039	.175	.273*	.357**	1

* = $p < .05$, ** = $p < .01$

Prior to engaging in the main analyses of this study, one more set of checks was performed. To ensure that the multiple linear regression for analyzing my data produced valid results, I tested multiple assumptions for multiple linear regression analysis. I used standard

residual diagnostics to check the assumptions of normality and homogeneity of variance. Normality assumes that the data are normally distributed, and this was assessed using a normal probability plot of residuals, and it confirmed the assumption of normality for the errors. The data did not vary significantly from the normality line, which shows that the assumptions were met. Homogeneity of variance assumes that groups have equal error variances. I utilized a scatterplot of residuals verses predicted values to assess homogeneity of variance. The data were equally distributed around zero, so this assumption was also met.

Data Analysis

To address the first research question, multiple regression analysis was used to statistically predict the likelihood of the dependent variable (i.e., resilience outcomes) based on the independent variable (i.e., parental separation) and other control variables (i.e., trauma severity, age, gender). Multiple linear regression analysis was used for this study because it predicts the probability of influence of various dichotomous or functionally interval/ratio predictor variables on a functionally interval/ratio outcome. The multiple linear regression analysis allowed me to examine the effect of the parental separation on the participant's resilience scores while controlling for trauma severity, age, and gender.

In order to address the second research question, multiple linear regression analyses with interaction terms were used to examine if age, gender, and trauma severity act as moderators of parental separation and resilience outcomes in children who have experienced trauma. Multiplicative interactive terms for age, gender, and gender severity were created and included in the regressions. To understand significant interactions, data were plotted that examined mean resiliency scores in the context of the interaction.

Main Effects of Parental Separation on Resiliency Scales

Mastery Resilience in Relation to Parental Separation, Trauma Severity, Age, and Gender

The first multiple linear regression analysis examined child's mastery resilience based on presence of parental separation, while controlling for trauma severity, age, and gender. The model predicting child's mastery resilience from parental separation, trauma severity, age, and gender was not significant, $F(4,76)=2.372$, $p = .060$, $R^2= .333$. Regression results are listed in Table 3.

Table 3
Standard Multiple Linear Regression Results with Mastery RSCA Scale as Dependent Variable and Parental Separation, Trauma Severity, Age, and Gender as Predictors

Variable	*B*	*SE B*	β	*t*	Sig.
Parental Separation	-3.178	2.726	-.132	-1.166	.247
Trauma Severity	-.203	.695	-.033	-.293	.771
Age	-.250	.581	-.048	-.430	.668
Gender	-6.546	2.585	-.279	-2.532	.013

Note: N=81

Relatedness Resilience in Relation to Parental Separation, Trauma Severity, Age, and Gender

A second regression analysis examined children's relatedness resilience based on presence of parental separation, controlling for trauma severity, age, and gender. This regression was statistically significant, $F(4,76) = 7.965$, $p < .000$, $R^2=.295$. In this model, however, only gender proved significantly related to relatedness, while controlling for trauma severity, age, and gender. Boys demonstrated more relatedness resilience than girls, while controlling for trauma severity, age, and gender. Regression results are listed in Table 4.

Table 4
Standard Multiple Linear Regression Results with Relatedness RSCA Scale as Dependent Variable and Parental Separation, Trauma Severity, Age, and Gender as Predictors

Variable	*B*	*SE B*	β	*t*	Sig.
Parental Separation	-3.111	2.697	-.116	-1.153	.252
Trauma Severity	-.490	.687	-.072	-.713	.478
Age	-.939	.575	-.161	-1.632	.107
Gender	-12.067	2.558	-.463	-4.718	.000

Note: N=81

Reactivity Resilience in Relation to Parental Separation, Trauma Severity, Age, and Gender

The last multiple regression examined children's reactivity resilience based on presence of parental separation, controlling for trauma severity, age, and gender. Results showed that there was no significant association between child's reactivity resilience scores and parental separation, trauma severity, age or gender, $F(4,75) = .865$, $p = .489$, $R^2 = .210$. Regression results are listed in Table 5.

Table 5
Standard Multiple Linear Regression Results with Reactivity RSCA Scale as Dependent Variable and Parental Separation, Trauma Severity, Age, and Gender as Predictors

Variable	*B*	*SE B*	β	*t*	Sig.
Parental Separation	1.592	2.543	.074	.626	.533
Trauma Severity	-.439	.649	-.081	-.677	.501
Age	-.368	.537	-.079	-.684	.496
Gender	3.835	2.410	.183	1.591	.116

Note: N=81

Summary: Research Question One

The results for the analysis for Research Question One indicated that parental separation does not significantly explain the variation on resilient functioning of children who have experienced trauma. Indeed, only gender emerged as a significant predictor of one aspect of resilience, relatedness. Thus, the data did not support my first hypothesis. However, although there was no support for a main effect of parental separation, the next set of analyses addressed my second research question, namely exploring whether the link between parental separation and resilience was moderated by trauma severity, age or gender.

Moderating Effect of Trauma Severity, Age, and Gender on Resilience Scales

Moderating Effect of Trauma Severity, Age, and Gender on the Relationship Between Parental Separation and Mastery Resilience

A multiple regression model was tested to investigate whether the association between parental separation and mastery resilience is moderated by trauma severity, age, and gender. After computing the interaction terms related to trauma severity, age, and gender, the predictors and the interactions were entered into a simultaneous regression model. The overall model was significant in this analysis, $F(7,73) = 2.785$, $p = .013$, $R^2 = .211$. Results indicated that trauma severity significantly moderates the effects of parental separation on mastery resilience, $B = -3.364$, $SE_B = 1.348$, $\beta = -.967$, $t = -2.496$, $p = .015$. Furthermore, results also showed that in this regression, gender became significantly associated with mastery resilience, $B = -12.395$, $SE_B = 4.108$, $\beta = -.528$, $t = -3.017$, $p = .004$, where it was not significant in the main effects regression analysis presented earlier. Results indicated that males significantly perform better

than females in mastery resilience when accounting for moderating variables. Regression results are presented in Table 6.

Table 6
Results from Standard Linear Regression Showing Moderation Effect of Trauma Severity, Age, and Gender on the Relationship Between Parental Separation and Mastery RSCA Scale

Variable	*B*	*SE B*	β	*t*	Sig.
Parental Separation (PS)	11.529	18.874	.479	.611	.543
Trauma Severity (TS)	1.478	.934	.242	1.583	.118
Age (A)	-.165	.994	-.031	-.166	.869
Gender (G)	-12.395	4.108	-.528	-3.017	.004
PS X TS	-3.364	1.348	-.967	-2.496	.015
PS X A	.044	1.203	.026	.037	.971
PS X G	8.650	5.179	.351	1.670	.099

Note: N=81

To explore the significant interaction between parental separation and trauma on mastery resilience, I created a two by two table utilizing parental separation (yes, no) and a median split on trauma (high, low) and examined the mean of mastery resilience in each category (refer to Table 7). Examining this table suggests that the effect of parental separation on mastery resilience is magnified in the presence of more trauma because children with parental separation and high trauma showed the lowest scores in mastery.

Table 7
Moderation Means of Mastery Resilience

	No Parental Separation	Parental Separation
Low Trauma Severity	44.18	50.79
High Trauma Severity	46.62	41.38

Moderating Effect of Trauma Severity, Age, and Gender on the Relationship Between Parental Separation and Relatedness Resilience

A multiple regression model was tested to investigate whether the association between parental separation and relatedness resilience is moderated by trauma severity, age, and gender. Again, the predictors and the interactions were entered into a simultaneous regression model with interactions terms. Results were significant for this model, $F(7,73) = 6.259$, $p = .000$, $R^2 = .375$. Results indicated that trauma severity significantly moderated the effects of parental separation on relatedness resilience, $B = -3.361$, $SE_B = 1.333$, $\beta = -.869$, $t = -2.522$, $p = .014$. Furthermore, results also showed that gender was significantly associated with relatedness resilience, $B = -18.505$, $SE_B = 4.062$, $\beta = -.710$, $t = -4.556$, $p = .000$. Results indicated that males significantly perform better than females in relatedness resilience when accounting for moderating variables. Regression results are shown in Table 8.

Table 8
Results from Standard Linear Regression Showing Moderation Effect of Trauma Severity, Age, and Gender on the Relationship Between Parental Separation and Relatedness RSCA Scale

Variable	*B*	*SE B*	β	*t*	Sig.
Parental Separation (PS)	25.242	18.663	.943	1.353	.180
Trauma Severity (TS)	1.242	.923	.183	1.346	.183
Age (A)	-.150	.983	-.026	-.153	.879
Gender (G)	-18.505	4.062	-.710	-4.556	.000
PS X TS	-3.361	1.333	-.869	-2.522	.014
PS X A	-.994	1.190	-.519	-.835	.406
PS X G	9.343	5.122	.342	1.824	.072

Note: N=81

To explore the significant interaction between parental separation and trauma on relatedness, I created a two by two table utilizing parental separation (yes, no) and a median split on trauma (high, low) and examined the mean of related resilience in each category (please refer to Table 9). As seen in the table, it appears that the effect of parental separation on relatedness resilience is magnified in the presence of more trauma given that children with parental separation and high trauma showed the lowest scores in relatedness resilience.

Table 9
Moderation Means of Relatedness Resilience

	No Parental Separation	Parental Separation
Low Trauma Severity	44.29	46.44
High Trauma Severity	49.29	39.59

Moderating Effect of Trauma Severity, Age, and Gender on the Relationship Between Parental Separation and Reactivity Resilience

The last multiple regression model was tested to investigate whether the association between parental separation and reactivity resilient outcomes is moderated by trauma severity, age, and gender. Results showed that there was no significant moderating effects of trauma severity, age, or gender on the effect of parental separation on child's reactivity resilience scores, $F(7,72) = .715$, $p = .660$, $R^2 = .225$. Regression results are presented in Table 10.

Table 10
Results from Standard Linear Regression Showing Moderation Effect of Trauma Severity, Age, and Gender on the Relationship Between Parental Separation and Reactivity RSCA Scale

Variable	*B*	*SE B*	β	*t*	Sig.
Parental Separation (PS)	-8.241	18.382	-.385	-.448	.655
Trauma Severity (TS)	-.836	.906	-.153	-.923	.359
Age (A)	-.873	.964	-.188	-.906	.368
Gender (G)	7.625	3.986	.365	1.913	.060
PS X TS	.632	1.326	.205	.477	.635
PS X A	.680	1.168	.444	.582	.562
PS X G	-5.831	5.058	-.267	-1.153	.253

Note: N=81

Summary: Research Question Two

Examining potential moderators (trauma severity, age, and gender) on the main effect of parental separation on children's resilience was an exploratory question in this study. Results showed that trauma severity is a significant moderator for mastery and relatedness resilience. Analysis of the interactions showed that children who have experienced a combination of parental separation and high trauma severity experienced the lowest scores in mastery and relatedness resilience scores. Further, moderation analysis showed a gender effect on mastery and relatedness resilience when accounting for moderating variables of trauma severity, age, and gender where male children scored higher than female children in these areas of resilience.

DISCUSSION

The purpose of the current study was to examine the association between parental separation and resilience in a highly traumatized sample of 81 children aged 5 to 18 years. Resilience was operationalized in a three-factor framework, including the domains of mastery, relatedness, and reactivity. I tested the hypothesis that parental separation would significantly account for the variance in the resilient functioning (i.e., less mastery and relatedness, and greater reactivity) of children who had experienced trauma. I found that, after controlling for gender, age, and trauma severity, parental separation did not significantly predict resilient functioning. A second purpose of the study was to investigate, in an exploratory manner, whether trauma severity, age, and gender moderated the association between parental separation and resilient outcomes. Trauma severity emerged as a significant moderator of the relationship between parental separation and both mastery and relatedness resilience. Specifically, it appears that the effect of parental separation on mastery and relatedness resilience is magnified in the presence of more trauma because children with parental separation and high trauma showed the lowest scores in mastery and relatedness resilience. Last, although not a specific aim of the study, I found some evidence of gender effects on resilience: males performed better than females in mastery and relatedness resilience when accounting for moderating variables of trauma severity, age, and gender. Further, I discuss the results of the current study. Findings that do not support the hypotheses are identified, and limitations regarding the generalizability and validity of these findings are noted. Recommendations for future resilience research in regards to working with children in highly traumatized samples are also presented.

Resilience and Parental Separation

It was hypothesized that in a population of children who have experienced significant trauma, parental separation would have a significant and deleterious effect on the resilient functioning of children in the areas of mastery, relatedness and reactivity. The findings in this study showed that parental separation did not significantly predict traumatized children's resilient functioning. Given the extant theoretical and empirical literature, this is a surprising finding. One possibility, however, is that resilient functioning depends on other factors such as gender, social support network (Garmezy & Masten, 1994; Wright, Masten, & Hubbard , 1997), intellectual ability, temperament, perceived sense of safety, or effective coping strategies (Luthar & Zelazo, 2003). I was only able to control for age, gender, and trauma severity, so it is difficult to test other factors in the current study. Gender, for example, did evince a direct relationship with resilience, so it is also possible that other variables are more sentinel to resilience than parental separation.

Another confounding factor is age. Although I was able to control for chronological age, data were not available regarding the age at which parental separation occurred. In addition, beyond the static marker of time of event, data were also not available related to how long the separation was or how many times it occurred. This is important because we know that parental separation can disrupt the attachment system during specific vulnerable periods of development (Fox & Rutter, 2010). Further, there was no information regarding whether the separation and other aspects of trauma were related. For example, the effect on children from a separation that occurs because the parent is directly abusing a child is arguably different than a separation that occurs because a parent's partner is abusing alcohol or other substances and the varied effects of each on the family system. Thus, the measure of parental separation utilized in this study was an

extremely crude indicator of what is a very complex issue. Detailed information about parental separation would be necessary to examine how parental separation more specifically affects these specific vulnerable periods of development and subsequently resilience outcomes for children. Thus, although the main hypothesis of the study was not supported, given the challenges inherent in the measure of parental separation utilized, and given the significant weight of previous theory and data in the literature, it would be premature to accept this null finding as definitive. Further research is needed to satisfy this question.

Moderators of Resilience

The second intent of this study was to investigate in an exploratory manner whether trauma severity, age, and gender moderated the association between parental separation and resilient outcomes. Indeed, trauma severity emerged as a significant moderator of the relationship between parental separation and resilience. Specifically, the effect of parental separation on mastery and relatedness resilience appears magnified in the presence of more trauma such that children with parental separation and high trauma severity showed the lowest scores in mastery and relatedness resilience. This is interesting in that there was no significant effect of parental separation on mastery resilience when controlling for trauma severity, age, and gender, but there was a moderating effect with trauma severity.

It may be that children who have experienced "some" trauma have the capacity to be resilient (Masten, 2001), but when the system gets overloaded there are significant adverse outcomes which makes it difficult for children to engage in resilient functioning. In the presence of both high trauma severity and parental separation children showed the lowest scores in mastery and relatedness resilience. This indicates that the combination of these adverse

circumstances could overload the system and lead to decreased resilience in the areas of mastery and relatedness.

A potential limitation to the trauma severity measure is that it only accounted for symptomology of trauma in children and did not account for history of trauma. The Southwest Michigan Trauma Screening Checklist used in this study included both history of trauma and symptomology of trauma. However, for the purposes of this study the measure of trauma severity was taken from just the symptomology of trauma portion of the Southwest Michigan Trauma Screening Checklist. There is support for trauma screening tools that only assess for symptomology of trauma when looking at trauma severity for children such as the standardized measure commonly used, Child Behavior Checklist (CBCL). As such, I utilized only the symptomology portion of the Southwest Michigan Trauma Screening Checklist for the trauma severity measure in order to narrow the focus to the child's behavioral symptoms. Looking at trauma severity as a measure that encompasses both history and symptomology may potentially have had a wider range of effects on resilience.

Resilience and Gender

This study controlled for key demographic variables – age and gender. While no effect of age effects emerged, gender showed to have a significant association with relatedness resilience when controlling for trauma severity, age, and gender, where highly traumatized female children showed lower relatedness resilience scores than highly traumatized male children. This finding is surprising based on previous research noting that females typically show higher relatedness resilience than boys in typical development (Prince-Embury, 2013). A potential interpretation of these results could be that certain combinations of traumatic circumstances in this sample could have pronounced adverse effects on female resilience than

male resilience such that it decreases female relatedness resilience more than male relatedness resilience.

Moreover, gender had a significant effect on mastery and relatedness resilience when moderating for trauma severity, age, and gender. Results indicated that highly traumatized female children show lower mastery and relatedness resilience than highly traumatized male children. The results for mastery resilience in the moderation analysis support the body of research literature that indicates male children typically perform better in mastery resilience than female children (Werner & Smith, 1982). Further research is needed to look into the surprising gender effects in relatedness resilience in the moderation analysis in order to extrapolate components that contributed to female children showing lower relatedness resilience than male children in the context of trauma.

Limitations and Future Directions

Limitations

There are several limitations to the current study in regards to the generalizability of the findings and representativeness of the sample. The most significant limitation was that this study contained a small sample size, which could result in low power, greater risk for type II errors, and limited ability to detect and examine relationships and small effect sizes that do exist.

Further, this study was conducted with secondary data, and as such, I was limited to available data. Among other challenges, there were limitations on the age of the participants. The majority (84%) of the participants were above 10 years old, so this study was not able to look at a large sample of young children during early to middle childhood where parental separation may have more adverse consequences on development and resilient functioning of

individuals. Furthermore, for this current study I was unable to specify parental separation in any important detail, including age at occurrence, length of separation, frequency of event or relationship to other trauma events. As such, this study was limited to the data where parental separation was a broad category where a variety of separations are included. For example, a child could have been removed from their parents or a parent could have dropped them off at a relative's house for several weeks. Both situations could have profoundly different effects on a traumatized child. In this study, parental separation could have included both situations.

Future Directions

The current study provided a preliminary investigation of the relationship between parental separation and resilience, and the moderating effects of gender, age, and trauma severity on this relationship. There are many areas in need of further exploration in this area. Future studies that continue to examine the factors that contribute to resilient functioning in traumatized samples will need to delineate further the conceptualization and measurement of parental separation. Based on the results of this preliminary study, there is a need for further research into gender differences in resilient functioning in traumatized samples. In the current study, girls have may been more adversely affected by trauma, and this needs additional scrutiny. For example, exploring intervention methods to enhance relatedness functioning for females who are highly traumatized may be beneficial. Additional exploration in the area of early childhood is also crucial to understand trauma and the developmental trajectories of resilience.

Conclusion

The results of the current study showed that parental separation did not significantly predict resilient functioning in traumatized youth. Analysis of demographic variables showed

that girls demonstrated less resilient functioning in relatedness than males, while controlling for trauma severity, age, and gender. Moreover, trauma severity moderated the main effect of parental separation on children's resilient functioning such that children exposed to parental separation and high trauma severity showed the lowest scores in mastery and relatedness resilience. The variables that were measured and analyzed in this study are clearly not the only variables relevant to the relationship between resilient functioning and trauma. However, this study provided a first step in investigating links between parental separation and resilience, and the moderating effects of gender, age, and trauma severity on this relationship in a highly vulnerable population.

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APPENDIX

Appendix A

NCTSN The National Child Traumatic Stress Network

Screening Checklist: Identifying Children at Risk
Ages 6-18

Please check each area where the item is known or suspected. If history is positive for exposure and concerns are present in one or more areas, a comprehensive assessment may be helpful in understanding the child's functioning and needs.

1. Are you aware of or do you suspect the child has experienced any of the following:
   _____ Physical abuse
   _____ Suspected neglectful home environment
   _____ Emotional abuse
   _____ Exposure to domestic violence
   _____ Known or suspected exposure to drug activity *aside from parental use*
   _____ Known or suspected exposure to any other violence *not already identified*
   _____ Parental drug use/substance abuse
   _____ Multiple separations from parent or caregiver
   _____ Frequent and multiple moves or homelessness
   _____ Sexual abuse or exposure
   _____ Other _____

If you are not aware of a trauma history, but multiple concerns are present in questions 2, 3, and 4, then there may be a trauma history that has not come to your attention. Note: Concerns in the following areas do not necessarily indicate trauma; however, there is a strong relationship.

2. Does the child show any of these behaviors:
   _____ Excessive aggression or violence towards self
   _____ Excessive aggression or violence towards others
   _____ Explosive behavior (Going from 0-100 instantly)
   _____ Hyperactivity, distractibility, inattention
   _____ Very withdrawn or excessively shy
   _____ Oppositional and/or defiant behavior
   _____ Sexual behaviors not typical for child's age
   _____ Peculiar patterns of forgetfulness
   _____ Inconsistency in skills
   _____ Other _____
3. Does the child exhibit any of the following emotions or moods:
   _____ Excessive mood swings
   _____ Chronic sadness, doesn't seem to enjoy any activities.
   _____ Very flat affect or withdrawn behavior
   _____ Quick, explosive anger
   _____ Other _____
4. Is the child having problems in school?
   _____ Low or failing grades
   _____ Inadequate performance
   _____ Difficulty with authority
   _____ Attention and/or memory problems,
   _____ Other _____

When checklist is completed, please fax to:

Child's First Name:_____ Age:_____ Gender:_____

County/Site: _____ Date: _____

Henry, Black-Pond, & Richardson (2010)
Western Michigan University
Southwest Michigan Children's Trauma Assessment Center (CTAC)

Appendix B

Colorado State University
Center for Family and Couple Therapy
Child Trauma & Resilience Assessment Center (CTRAC)

Release of Information Form

I _____ authorize the mutual exchange of information between the CTRAC team and the persons/organizations listed below. This release regarding _____ covers pertinent information regarding history, diagnosis, medical and treatment records, psychological and educational evaluations, and similar information from the records.

Initial If:		Agencies/Individuals
Agency may release TO CTRAC	CTRAC may release TO agency	
		Counselor/therapist (List names or agency):
		School(s):
		Probation (Includes probation officers):
		Guardian *ad litem(s)*:
		Family members (List names):
		Placement Provider (List names or agency):
		Mentors/Coaches:
		SB94:
		Caseworker:
		Other:

_____ By initialing I authorize the CTRAC team to share this release in its entirety with the above parties

**This release will expire 1 year from the below date. If you wish to amend this release or redact permission for the CTRAC team to communicate with an individual or agency, please do so in writing.*

Youth Name (printed)	(or Authorized Representative)	DOB if minor child
Youth Signature	Signature	Date
CTRAC Team Member Name & Title	Signature	Date

Appendix C

DISCLOSURE FOR TRAUMA & RESILIENCE FORENSIC EVALUATIONS

Child Trauma & Resilience Assessment Center (CTRAC)
Colorado State University
Center for Family and Couple Therapy
502 W Lake Street; Gifford Building Room 119
Fort Collins, CO 80523-1570
970-491-5093; ctrac@colostate.edu

A. CTRAC LEADERSHIP TEAM

Stephanie Seng, MS, LMFT, CTRAC Director
CK Kemp, PhD, MFT-C, CTRAC Assistant Director
Address: 502 W Lake Street, Room 119
Telephone: 970-491-5093
Email: ctrac@colostate.edu

B. EVALUATOR'S CREDENTIALS:

The Child Trauma and Resilience Assessment Center (CTRAC) utilizes a team approach for trauma assessments, hereby referred to as an "evaluation." All practicing clinicians have completed, or are working towards completion of, their M.S. in Human Development and Family Studies with a specialization in Marriage and Family Therapy. All faculty and community supervisors have completed their M.S., in this same degree and have their license, or are working towards completion of their licensees, in marriage and family therapy. Aside from out-of-state consultants, all participating team members are registered with the Colorado Department of Regulatory Agencies (DORA). Any questions, comments, and/or requests should be directed to the leadership team outlined above.

C. THE ROLE OF THE EVALUATION TEAM:

We have been requested to conduct an evaluation of you (or the child for whom you have decision making rights) and to prepare a report concerning the evaluation. All information that is provided to me including sensitive, personal information will not be confidential, because it will be shared with others, including the entity that has requested the evaluation. This evaluation has been requested by Larimer County Department of Human Services (LCDHS).

Although our team is made up of healthcare providers by training and experience, the purpose of this evaluation will **not** be to provide treatment for you. You do not have and will not have a professional relationship with the CTRAC Team. We want to make it clear that we will not be providing treatment for you, and will have no duty to make referrals for you to healthcare providers, just as we will not have a duty to make treatment recommendations for you.

D. PROCESS

The evaluation that we will be conducting will most likely include a review of records concerning the child being evaluated, an interview of collateral connections (e.g., including but not limited to current and/or previous caregivers, service providers, educators, and other identified personal contacts), and may include testing. We will then prepare a report, which will be submitted to the Requesting Authority (LCHDS). Although not always, this report could be used by the court to make any determinations that need to be made by the court. Any fees for my professional services will be paid by LCDHS. If you have any specific questions concerning how the information that we obtain will be used or concerning who may receive a

copy of the report, please let us know, and we will try to answer your question. Per the nature of the evaluation, the final report will be distributed to the requesting authority (LCHDS). Family members, care providers, and other relevant supports can request copies from the requesting authority. In other words, you are not entitled to a copy of the report and the release of the report will be at the discretion of the requesting authority (LCHDS).

E. REPORTING REQUIREMENTS:

All team members are required to report any suspected child abuse or neglect to the local county Department of Social Services or to law enforcement, unless the suspected abuse or neglect has already been reported. This is also true for the suspicion of mistreatment of at-risk adults or elders. If you make a threat to harm any person, team members are required to notify the person threatened and also report the threat to law enforcement. Additional situations that require reporting would be if the clinician is ordered to release information by a court of law, if the clinician suspects you know about or pose a threat to national security, and/or if the clinician believes you are a danger to yourself.

By signing this document, you are acknowledging that you understand the disclosures that have been made in it, that you understand our role as evaluators, and that you understand how this evaluation and the subsequent report will be used.

F. CTRAC EVALUATION TEAM DISCLOSURES:

The names of members of the treatment team including supervisors are listed below. To facilitate a team approach, the CFCT uses one-way mirrors and video/audio recording. By signing this form, you authorize:

(a) The evaluation team to record sessions. This information may be used under direct supervision for the educational purposes of clinicians on the evaluation team only.
(b) The clinical supervisors and/or members of the evaluation team to observe your sessions through the one-way mirror. Please be aware that not every evaluation session is observed in its entirety since multiple sessions may be in progress at the same time.

We are not an emergency facility. In case of emergency, please call 911 or go to the nearest emergency room, then follow-up with the appropriate resources (e.g., caseworker, therapist). All phone messages left for the evaluation team at the CTRAC office will be returned by a team member at their earliest ability. You should also be aware that in a professional relationship such as forensic evaluations, sexual intimacy is never appropriate and should be reported to the Center Director and to the Colorado Department of Regulatory Agencies' Grievance Board.

All clinicians providing service with the CFCT/CTRAC are regulated by the Colorado Department of Regulatory Agencies who maintains a Grievance Board, accessible via the following address and telephone number: Department of Regulatory Agencies, Division of Registrations, Mental Health Section, 1560 Broadway, Suite 1350, Denver, CO, 80202, (303) 894-7800.

Data Collection

The CFCT staff may use data collected during the course of therapy for the purpose of program evaluation. Information will be confidential, aggregated, and used for the purpose of program improvement.

Contact Information

Your clinician, her/his supervisor, and the CFCT Director, Stephanie Seng, MS, LMFT, can be reached at the following address and phone number: CFCT, Campus Delivery 1570, Colorado State University, Ft. Collins, CO, 80523, (970) 491-5991 or (970) 491-5093

Clients Right Summary

Effective Date: 11/2/2016
Unless otherwise documented and permitted by law, the following are a list of the rights for each Center for Family and Couple Therapy client:

- The right to be fully informed of all rights and services
- The right to be treated with respect and dignity
- The right to be treated in an equitable manner and be free of harassment based on race, sexual orientation, age, lifestyle, ability, gender, gender identity, religion, national origin, or ability to pay
- The right to file a grievance
- The right to confidentiality in accordance with state law
- The right to know the name, office address, and office phone number of your therapist
- The right to know the degree, credentials, and licenses held by your therapist
- The right to receive information concerning methods of therapy employed, the techniques used, the duration of therapy, and the fee structure for services provided
- The right to participate in creation, review, and reassessment of the treatment plan
- The right to see a second opinion from another therapist or legal counsel
- The right to terminate therapy at any time
- The right to request a treatment summary or information regarding your treatment progress
- The right to receive explanation of the reasons for denial of service

Ask your clinician and/or see Consumer Disclosure Statement if you need additional information.

Child being evaluated: _____ Child DOB: _____Child age at time of evaluation: _____

Child Signature (if 15 or older): _____ Date: _____

If the child is younger than 15:

I, _____ hereby state that I have, or I represent the entity that has, _____ (i.e., joint, sole) parental responsibilities in the form of major decision making authority for the child listed above.

Signature of Individual with Decision-Making Authority: _____
Date: _____

Signature of Individual with Decision-Making Authority: _____
Date: _____

CTRAC Team Representative – Name and Title:
_____

CTRAC Team Representative Signature: _____
Date: _____

Appendix D

Southwest Michigan's Trauma Screening Tool Checklist Manual

SECTION 1: TYPES OF POTENTIALLY TRAUMATIC EVENTS

This section is intended to document the possible traumatic experiences the child has experienced. You will check the item if you, or the caregiver, know that the child has experienced it or if you suspect that the child has experienced it.

TYPE	WORKING DEFINITION
Physical abuse	The child experienced an actual or attempted infliction of physical pain such as hitting, slapping, stabbings, burns, and/or bruising by a caregiver or adult. You should not interpret this to be equivalent to Colorado's statutory definition of abuse.
Suspected neglectful home environment	The child experienced an absence of such things as food, clothing, or shelter, left alone for long periods of time relative to age, or left for extended periods of time to care for siblings, caregiver failure to protect from known or suspected threat of harm, and/or absence of needed medical care. You should not interpret this to be equivalent to Colorado's statutory definition of neglect.
Emotional Abuse	The child experienced verbal abuse (insults, debasement, threats of violence), emotional abuse (bullying, terrorizing, coercive control), belittling and/or humiliating interactions, purposefully shaming the child, or exploitation by the parent. . You should not interpret this to be equivalent to Colorado's statutory definition of emotional abuse.
Exposure to domestic violence	The child experienced exposure, either actually witnessing, hearing, or being in the home, to emotional abuse, actual/attempted physical or sexual assault, or aggressive control perpetrated between a parent/caretaker and another adult in the child's home environment.
Known or suspected drug activity aside from parental use	Parent's operating and/or distributing drug growing/manufacturing operation within the home. May include frequent and chronic traffic in and out of the home secondary to substance abuse and /or criminal drug activity, including
Known or suspected exposure to any other violence not already identified	The child experienced or witnessed extreme violence or threats of violence in the community such as neighborhood or gang violence. Or the child experienced exposure to school violence or severe bullying

Parental drug use/substance abuse	Parental substance use/abuse resulting in an inability to care for child/children's developmental needs on a routine basis; illegal substance use resulting in disruption of child's needs being responded to in a developmentally appropriate manner.
Multiple separations from/or changes in primary caregiver	Two or more abrupt, unexplained, and/or indefinite separation from a parent, primary caretaker, or sibling due to circumstances beyond the child's control. These separations may or may not have been related to the child's entry into foster care.
Frequent and multiple moves or Homelessness	The child experienced homelessness, "couch-surfing" alone or with parents between friends/relatives' residences, and/or lived in an emergency shelter for an extended amount of time.
Sexual abuse or exposure	The child experienced an actual or attempted sexual contact such as fondling, genital contact and/or exposure to age-inappropriate sexual material, environment or others by a caregiver and/or another adult. You should not interpret this to be equivalent to Colorado's statutory definition of abuse.

SECTIONS 2 - 4: BEHAVIORS, MOODS, ATTACHMENT/SCHOOL ISSUES

This section is intended to document typical behaviors often associated with experiencing a traumatic event. The fact that a child shows some of these behaviors does not automatically suggest that they have experienced trauma. It only provides more information for us to consider as we decide whether this child might benefit from a trauma-informed mental health assessment.

The section on behaviors, emotions/moods, and attachment (under age 6) or school (age 6-18) are written in common terms. Variation in how front-line workers may interpret items is acceptable. If there are behaviors or other problems that are not listed, you should write them in the 'other' field as needed.

Behavior/Mood/Attachment/school	Working Definition
Excessive aggression or violence towards others	Behaviors that cause psychological or physical harm to another individual/or surroundings or resulting in supervision needs beyond what would be developmentally appropriate due to aggressive behaviors
Excessive aggression or violence towards self/self-harm	Child may bite, bang head, hit self, or intentionally put self in harm's way (ie. Running into traffic or other unsafe situations). Includes cutting behaviors.

Repetitive violent and/or sexual play (or maltreatment themes):	Violent or physically intense play that appears repetitive and is not resolved in the play, lack of empathy in violent play, Sexual play that involves developmentally inappropriate sexual themes or knowledge, such as intercourse, oral sex, and placing objects into the vaginal and/or rectal openings of dolls or other play characters. Removing clothes from dolls is not in and of itself a concern.
Explosive behavior (Excessive and prolonged tantruming)	Episodes of impulsive, aggressive, violent behavior or angry verbal outbursts in which the reaction is grossly out of proportion to the situation. Also includes excessively prolonged episodes from which it is difficult for child to become calm again.
Disorganized Behavioral States	Sudden, unpredictable changes in a child's behavior Behavioral states seem to have no pattern – crying to giggling to explosive or angry, for example. Inappropriate behavior for the environment/context. No apparent reason or cause for the shift.
Hyperactivity, distractibility, inattention	Child may have increased arousal and/or difficulty with concentration and task completion, e.g. child may struggle completing schoolwork or have difficulty forming strong peer relationships
Very withdrawn or excessively shy	Child may cling to caregiver, avoid eye contact refuse to speak even after allowed a period of time that is developmentally appropriate to become familiar with a new person or situation
Oppositional and/or defiant behavior	Child/youth may be negative, hostile, frequently argue and refuse to comply with rules, physically or verbally aggressive, destroy property, steal, break the law, start fires, run away, or act sexually promiscuous
Bossy or demanding behaviors with adults and peers	Inappropriate demands of others , disregards the needs of others, interrupts, take things out of others hands
Sexualized behaviors not typical for child's age	Children who act out sexually "Hypersexualized" often are reenacting their sexual abuse. This can occur with another child by attempting to insert objects in the others vagina and/or rectum and/or perform oral sex. Sometimes children will attempt to insert objects in animals as well. Simulating sex

MAS

Here is a list of things that happen to people and that people think, feel, or do. Read each sentence carefully, and circle the *one* answer (Never, Rarely, Sometimes, Often, or Almost Always) that tells about you best. THERE ARE NO RIGHT OR WRONG ANSWERS.

	0	1	2	3	4
1. Life is fair.	Never	Rarely	Sometimes	Often	Almost Always
2. I can make good things happen.	Never	Rarely	Sometimes	Often	Almost Always
3. I can get the things I need.	Never	Rarely	Sometimes	Often	Almost Always
4. I can control what happens to me.	Never	Rarely	Sometimes	Often	Almost Always
5. I do things well.	Never	Rarely	Sometimes	Often	Almost Always
6. I am good at fixing things.	Never	Rarely	Sometimes	Often	Almost Always
7. I am good at figuring things out.	Never	Rarely	Sometimes	Often	Almost Always
8. I make good decisions.	Never	Rarely	Sometimes	Often	Almost Always
9. I can adjust when plans change.	Never	Rarely	Sometimes	Often	Almost Always
10. I can get past problems in my way.	Never	Rarely	Sometimes	Often	Almost Always
11. If I have a problem, I can solve it.	Never	Rarely	Sometimes	Often	Almost Always
12. If I try hard, it makes a difference.	Never	Rarely	Sometimes	Often	Almost Always
13. If at first I don't succeed, I will keep on trying.	Never	Rarely	Sometimes	Often	Almost Always
14. I can think of more than one way to solve a problem.	Never	Rarely	Sometimes	Often	Almost Always
15. I can learn from my mistakes.	Never	Rarely	Sometimes	Often	Almost Always
16. I can ask for help when I need to.	Never	Rarely	Sometimes	Often	Almost Always
17. I can let others help me when I need to.	Never	Rarely	Sometimes	Often	Almost Always
18. Good things will happen to me.	Never	Rarely	Sometimes	Often	Almost Always
19. My life will be happy.	Never	Rarely	Sometimes	Often	Almost Always
20. No matter what happens, things will be all right.	Never	Rarely	Sometimes	Often	Almost Always

For *T* scores, see Table A.1.

TS _____ RS _____

REA

Here is a list of things that happen to people and that people think, feel, or do. Read each sentence carefully, and circle the *one* answer (Never, Rarely, Sometimes, Often, or Almost Always) that tells about you best. THERE ARE NO RIGHT OR WRONG ANSWERS.

	0	1	2	3	4
1. It is easy for me to get upset.	Never	Rarely	Sometimes	Often	Almost Always
2. People say that I am easy to upset.	Never	Rarely	Sometimes	Often	Almost Always
3. I strike back when someone upsets me.	Never	Rarely	Sometimes	Often	Almost Always
4. I get very upset when things don't go my way.	Never	Rarely	Sometimes	Often	Almost Always
5. I get very upset when people don't like me.	Never	Rarely	Sometimes	Often	Almost Always
6. I can get so upset that I can't stand how I feel.	Never	Rarely	Sometimes	Often	Almost Always
7. I get so upset that I lose control.	Never	Rarely	Sometimes	Often	Almost Always
8. When I get upset, I don't think clearly.	Never	Rarely	Sometimes	Often	Almost Always
9. When I get upset, I react without thinking.	Never	Rarely	Sometimes	Often	Almost Always
10. When I get upset, I stay upset for about one hour.	Never	Rarely	Sometimes	Often	Almost Always
11. When I get upset, I stay upset for several hours.	Never	Rarely	Sometimes	Often	Almost Always
12. When I get upset, I stay upset for the whole day.	Never	Rarely	Sometimes	Often	Almost Always
13. When I get upset, I stay upset for several days.	Never	Rarely	Sometimes	Often	Almost Always
14. When I am upset, I make mistakes.	Never	Rarely	Sometimes	Often	Almost Always
15. When I am upset, I do the wrong thing.	Never	Rarely	Sometimes	Often	Almost Always
16. When I am upset, I get into trouble.	Never	Rarely	Sometimes	Often	Almost Always
17. When I am upset, I do things that I later feel bad about.	Never	Rarely	Sometimes	Often	Almost Always
18. When I am upset, I hurt myself.	Never	Rarely	Sometimes	Often	Almost Always
19. When I am upset, I hurt someone.	Never	Rarely	Sometimes	Often	Almost Always
20. When I am upset, I get mixed-up.	Never	Rarely	Sometimes	Often	Almost Always

For *T* scores, see Table A.1.

TS _____ RS _____

REL

Here is a list of things that happen to people and that people think, feel, or do. Read each sentence carefully, and circle the *one* answer (Never, Rarely, Sometimes, Often, or Almost Always) that tells about you best. THERE ARE NO RIGHT OR WRONG ANSWERS.

	0	1	2	3	4
1. I can meet new people easily.	Never	Rarely	Sometimes	Often	Almost Always
2. I can make friends easily.	Never	Rarely	Sometimes	Often	Almost Always
3. People like me.	Never	Rarely	Sometimes	Often	Almost Always
4. I feel calm with people.	Never	Rarely	Sometimes	Often	Almost Always
5. I have a good friend.	Never	Rarely	Sometimes	Often	Almost Always
6. I like people.	Never	Rarely	Sometimes	Often	Almost Always
7. I spend time with my friends.	Never	Rarely	Sometimes	Often	Almost Always
8. Other people treat me well.	Never	Rarely	Sometimes	Often	Almost Always
9. I can trust others.	Never	Rarely	Sometimes	Often	Almost Always
10. I can let others see my real feelings.	Never	Rarely	Sometimes	Often	Almost Always
11. I can calmly tell others that I don't agree with them.	Never	Rarely	Sometimes	Often	Almost Always
12. I can make up with friends after a fight.	Never	Rarely	Sometimes	Often	Almost Always
13. I can forgive my parent(s) if they upset me.	Never	Rarely	Sometimes	Often	Almost Always
14. If people let me down, I can forgive them.	Never	Rarely	Sometimes	Often	Almost Always
15. I can depend on people to treat me fairly.	Never	Rarely	Sometimes	Often	Almost Always
16. I can depend on those closest to me to do the right thing.	Never	Rarely	Sometimes	Often	Almost Always
17. I can calmly tell a friend if he or she does something that hurts me.	Never	Rarely	Sometimes	Often	Almost Always
18. If something bad happens, I can ask my friends for help.	Never	Rarely	Sometimes	Often	Almost Always
19. If something bad happens, I can ask my parent(s) for help.	Never	Rarely	Sometimes	Often	Almost Always
20. There are people who will help me if something bad happens.	Never	Rarely	Sometimes	Often	Almost Always
21. If I get upset or angry, there is someone I can talk to.	Never	Rarely	Sometimes	Often	Almost Always
22. There are people who love and care about me.	Never	Rarely	Sometimes	Often	Almost Always
23. People know who I really am.	Never	Rarely	Sometimes	Often	Almost Always
24. People accept me for who I really am.	Never	Rarely	Sometimes	Often	Almost Always

For *T* scores, see Table A.1.

TS _____ RS _____